

SAFETY DATA SHEET: ETHYL ALCOHOL, DENATURED 200 Proof

1. IDENTIFICATION

Product Name: ETHYL ALCOHOL, DENATURED 200 Proof
Synonyms: Denatured alcohol; Denatured ethanol; Ethanol
Formula and Formula Weight: CH₃CH₂OH 46.07
Integra numbers beginning with: E814.50
Recommended Use: General industrial solvent
Restrictions on Use: Personal or household use

INTEGRA Chemical Company **24 Hour Emergency Response: CHEMTREC 800-424-9300 (Outside USA 703-527-3887)**
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2. HAZARDS IDENTIFICATION

<u>OSHA Classification:</u>	<u>Hazard Category:</u>	<u>Hazard Statement:</u>
Acute Toxicity - Oral	4	Harmful if swallowed.
Skin Corrosion/Irritation	2	Causes skin irritation.
Eye Damage/Irritation	2A	Causes serious eye irritation.
Specific Target Organ Toxicity (single exposure)	1	Causes damage to organs.
Flammable Liquids	2	Highly flammable liquid and vapor.

Signal Word: DANGER



Precautionary Statements

Prevention:

Keep away from heat, sparks, open flames, hot surfaces. – No smoking.
Keep container tightly closed.
Ground, bond container and receiving equipment. Use only non-sparking tools.
Use explosion-proof electrical, ventilating, lighting equipment and take precautionary measures against static discharge.
Do not breathe fume, gas, mist, vapors, spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves, eye protection, face protection.

Response

If swallowed: Call a poison center, doctor if you feel unwell. Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water, shower. If skin irritation occurs: Get medical advice, attention.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice, attention.
If exposed: Call a poison center, doctor
Specific treatment (see first aid section on this label)
Take off contaminated clothing and wash it before reuse.

Storage

Store in a well ventilated place. Keep cool.
Store locked up.

Disposal

Dispose of contents, container in accordance with all governmental regulations.

Hazards Not Otherwise Classified: No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>Synonyms</u>	<u>CAS #</u>	<u>% Volume</u>
Ethyl alcohol	Ethanol	00064-17-5	85
Isopropyl alcohol	Isopropanol; IPA; 2-Propanol	00067-63-0	09
Methyl alcohol	Methanol; Wood alcohol; Methyl hydrate	00067-56-1	05
Methyl isobutyl ketone	4-Methyl-2-pentanone; MIBK; Hexone	00108-10-1	01

4. FIRST AID MEASURES

Inhalation: Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult administer oxygen. Seek medical attention.

Eye Contact: Flush eyes with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek immediate medical attention.

Skin Contact: Remove contaminated clothing. Flush skin with plenty of water. Seek medical attention if irritation develops.

Ingestion: Rinse mouth. Give victim large amounts of water and induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention.

Additional notes: Symptoms and effects include drunkenness followed by severe systemic illness and perhaps blindness and death.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Carbon dioxide, dry chemical or alcohol foam. Water may be ineffective.

Special Equipment and Precautions: Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.

Specific Hazards: Vapors may flow along surfaces to distant ignition sources and flash back. Burns with a pale blue flame which may be difficult to see under normal lighting conditions.

Hazardous combustion products: Oxides of carbon.

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Remove all potential ignition sources. Prevent spread of spill. Wear full protective equipment including suitable respiratory protection. Absorb with sand or inert material. Place into suitable container for disposal.

7. HANDLING AND STORAGE

Incompatible Materials: Incompatible with strong oxidizers. Strong inorganic acids, alkali metals, ammonia, peroxides.

Storage and Handling: Store locked up in a cool, dry, well-ventilated flammable liquids storage area or cabinet away from incompatible materials. Keep away from heat and ignition sources. Keep containers tightly closed and protect them from physical damage. Bond and ground containers when transferring liquid. Use only non-sparking tools and take precautionary measures against static discharge. No smoking. Keep material cool.

Keep away from heat, sparks, open flames, hot surfaces. – No smoking.

Keep container tightly closed.

Ground, bond container and receiving equipment. Use only non-sparking tools.

Use explosion-proof electrical, ventilating, lighting equipment and take precautionary measures against static discharge.

Do not breathe fume, gas, mist, vapors, spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves, eye protection, face protection.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

OSHA & ACGIH Exposure Limits:

Ethyl Alcohol	OSHA TWA: 1000 ppm; 1900 mg/m3 ACGIH STEL: 1000 ppm; 1880 mg/m3
Isopropyl alcohol	OSHA TWA: 400 ppm; 980 mg/m3 ACGIH TWA: 200 ppm; 491 mg/m3 ACGIH STEL: 400 ppm; 984 mg/m3
Methyl alcohol	OSHA TWA: 200 ppm; 260 mg/m3 ACGIH TWA: 200 ppm; 262 mg/m3 ACGIH STEL: 250 ppm; 328 mg/m3
Methyl isobutyl ketone	OSHA TWA: 100 ppm; 410 mg/m3 ACGIH TWA: 20 ppm; 82 mg/m3 ACGIH STEL: 75 ppm; 307 mg/m3

Engineering Controls: Use general or local exhaust ventilation to meet TLV and PEL requirements.

Respiratory Protection: Respiratory protection required if airborne concentrations exceed PEL or TLV. Use a NIOSH approved chemical cartridge respirator with an organic vapor cartridge.

Skin/Eye Protective Equipment: Safety goggles, protective clothing and gloves appropriate for the risk of exposure.

Facilities storing or utilizing this material should have readily accessible eyewash stations and safety showers. Select respirators and other safety equipment in accordance with regulations and based upon the particular conditions of use and risk of exposure. Always use safe chemical-handling and good industrial hygiene practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless liquid

Odor: Sweet odor

Odor Threshold: No information available

pH: No information available

Melting/Freezing Point: (pure ethanol) -178 °F

Initial Boiling Point and Boiling Range: (pure ethanol) 173 °F

Flash Point: approx 55 °F

Evaporation Rate: No information available

Flammability: Flammable

Flammable or Explosive Limits (% by volume in air): Upper: 19 (pure ethanol)
Lower: 3.3 (pure ethanol)

Vapor Pressure: No information available

Vapor Density: No information available

Relative Density: 0.79 Water=1

Solubility: Miscible with water.

Partition Coefficient: n-octanol/water No information available
 Auto-Ignition Temperature: (pure ethanol) 685 °F
 Decomposition Temperature: No information available
 Viscosity: No information available

10. STABILITY AND REACTIVITY

Reactivity: No information available
 Stability: Stable
 Possibility of Hazardous Reactions: Hazardous polymerization will not occur. Vapors may form explosive mixture with air.
 Conditions to Avoid: Heat, sparks and open flame.
 Incompatibles: Incompatible with strong oxidizers. Strong inorganic acids, alkali metals, ammonia, peroxides.
 Decomposition Products: Oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Effects of Over Exposure:

Inhalation: Harmful if inhaled. Symptoms include respiratory tract irritation, coughing, dizziness, dullness and headache. High concentrations can produce central nervous system depression, narcosis and unconsciousness.
 Skin Contact: May cause skin irritation. Prolonged contact may cause dermatitis.
 Eye Contact: Contact may be irritating to the eyes. May cause painful sensitization to light.
 Ingestion: Harmful if swallowed. Ingestion may cause headache, dizziness, nausea, vomiting, gastrointestinal irritation. Produces drunkenness followed by severe systemic illness and perhaps blindness and death.
 Chronic Effects: Chronic exposure may damage the liver, kidneys, eyes, lungs, heart, central nervous system, brain and spleen. May cause loss of appetite, weight loss, nervousness, memory loss, mental retardation.
 Target Organs: Liver, kidneys, eyes, lungs, central nervous system, brain, respiratory system, hearth, stomach and spleen.
 Additional Effects: May aggravate pre-existing skin disorders, liver disorders
 Reproductive Effects: Ethyl Alcohol has been linked to birth defects in humans.
 Carcinogenicity:
 Isopropyl alcohol is listed by the IARC as Group 3, Unclassifiable.
 Methyl isobutyl ketone is listed by the IARC as Group 2B, Possible Human Carcinogen.

Toxicity Data:

Ethyl Alcohol	LC50 (inhalation, rat)	20000 ppm/10hr
	LD50 (oral, rat)	7060 mg/kg
	LDlo (skin, rabbit)	20000 mg/kg
Isopropyl alcohol	LC50 (inhalation, rat)	16000 ppm/8H
	LD50 (oral, rat)	5000 mg/kg
	LD50 (skin, rabbit)	12800 mg/kg
Methyl alcohol	LD50 (oral, rat)	5600 mg/kg
	LDlo (oral, human)	143 mg/kg
	LD50 (skin, rabbit)	15800 mg/kg
Methyl isobutyl ketone	Irritation (skin, rabbit)	mild 500 mg/24 hr
	LC50 (inhalation, mouse)	23300 mg/m3
	LD50 (oral, rat)	2080 mg/kg

12. ECOLOGICAL INFORMATION

Aquatic Toxicity Data:

Terrestrial Toxicity Data:

Ethyl Alcohol LC50 Oncorhynchus mykiss: >10,000 mg/ No information available
 Isopropyl alcohol LC50 Pimephales promelas: 9640 mg/L - No information available
 Methyl alcohol LC50 Lepomis macrochirus: 15,400 mg/L - No information available
 Methyl isobutyl ketone LC50 Leuciscus idus melanotus: 480 mg/L No information available

Persistence and degradability: No information available
 Bioaccumulative potential: No information available
 Mobility in soil: No information available
 Other adverse effects: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Procedures: Dispose of material and containers in accordance with all local, state and federal regulations.

14. TRANSPORTATION INFORMATION

This product is a regulated material for domestic ground transportation, per CFR Title 49.

UN Number: UN1170
 Proper Shipping Name: Ethanol
 Packing Group: II
 Hazard Class: 3
 Environmental hazards: No information available
 Special precautions: No information available

Bulk transport: No information available

15. REGULATORY INFORMATION

Ethyl Alcohol is listed in the TSCA inventory.
Isopropyl alcohol is listed in the TSCA inventory and in SARA 313.
Methyl alcohol is listed in the TSCA inventory and in SARA 313.
Methyl isobutyl ketone is listed in the TSCA inventory and in SARA 313.

16. OTHER INFORMATION

OSHA SDS #: 25602 rev 101 3/27/2015

NE = Not established, NA = Not applicable or Not available

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***** END OF SDS *****